

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

United Access Technologies, LLC)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 11-338 (KAJ)
)	FILED UNDER SEAL
AT&T Corp., <i>et al.</i> ,)	
)	
Defendants.)	
)	
)	

United Access Technologies, LLC)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 11-339 (KAJ)
)	FILED UNDER SEAL
CenturyTel Broadband Services, LLC and)	
Qwest Corporation,)	
)	
Defendants.)	
)	

MEMORANDUM OPINION

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April 30, 2021
Wilmington, Delaware


JORDAN, Circuit Judge, sitting by designation

I. INTRODUCTION

Plaintiff United Access Technologies (“UAT”) and the defendants in Case No. 11-338 (the “AT&T Defendants”) and Case No. 11-339 (the “CenturyTel Defendants”) (collectively, the “Defendants”) have briefed and argued numerous pretrial motions.¹ UAT filed a combined motion for partial summary judgment (amounting to eight separate requests) and to strike certain expert testimony (11-338, D.I. 256 and 11-339, D.I. 281), and the Defendants filed six motions (11-338, D.I. 245 (the AT&T Defendants’ motion to exclude expert opinions); 11-339, D.I. 268 (the CenturyTel Defendants’ motion to exclude expert opinions); 11-339, D.I. 271 (the CenturyTel Defendants’ motion for partial summary judgment pursuant to 35 U.S.C. § 287(a)); 11-338, D.I. 276 and 11-339, D.I. 300 (the Defendants’ partial cross-motion for summary judgment); 11-338, D.I. 251 and 11-339, D.I. 278 (the Defendants’ motion for summary judgment of invalidity); 11-338, D.I. 248 and 11-339, D.I. 275 (the Defendants’ motion for summary judgment of noninfringement)).

In support of their motion for summary judgment of noninfringement, the Defendants advance two noninfringement positions: (1) that the signal interface is not on the local side of the public trunk line in the accused systems; and (2) that the accused systems do not pass telephone signals in the telephone voiceband to the telephone exchange. The first argument applies to all the Defendants, while the second, if granted,

¹ Unless specifically noted as relating to case number 11-339, docket index citations in this opinion are to case number 11-338.

would only apply to some of the Defendants. I will grant the Defendants' motion under their first theory and therefore dismiss the infringement case in its entirety. I will also deny the Defendants' motion for summary judgment of invalidity, as they have failed to carry their burden. The remainder of the pending motions will be denied as moot.

II. BACKGROUND

On April 15, 2011, UAT filed complaints against the AT&T Defendants (11-338, D.I. 1), the CenturyTel Defendants (11-339, D.I. 1), and several other telecommunication companies that have since settled. UAT currently asserts claims in U.S. Patent Nos. 5,844,596 (the "'596 patent"); 6,243,446 (the "'446 patent"); and 6,542,585 (the "'585 patent") (collectively, the "Asserted Patents"), which are directed at "a way of simultaneously transmitting data and voice signals over a single telephone line without causing interference." *United Access Techs., LLC v. AT&T Corp.*, 757 F. App'x 960, 962 (Fed. Cir. 2019) ("*UAT*"). In particular, "UAT assert[s] claim 61 of the '596 patent, claims 1-5 of the '446 patent, and claims 1, 2, 4, 8, and 9 of the '585 patent," with claim 61 of the '596 patent being representative.² *Id.*

² 61. A system for communicating information between an external source of information and a plurality of destinations of information over a telephone wiring network used for passing telephone signals in a telephone voice band between a plurality of telephone devices and a telephone exchange, comprising:

- a plurality of transceivers coupled between the telephone wiring network and corresponding destinations of information, each including
 - circuitry for accepting signals in a high frequency band of frequencies above the highest frequency of the telephone voice band and rejecting signals in the telephone voice band; and
- a signal interface coupled between the external source of information and the

The Defendants' accused systems function as follows. Phones in individual residences transmit signals in the 0-4 kHz voiceband across twisted pair wiring internal to the residence. That wiring can also simultaneously carry digital signals in a higher frequency bandwidth (between 25.875 kHz and 2208 kHz). A network interface device ("NID") is located on the outside of the house and connects that internal twisted pair to twisted pair wiring external to the residence, the external wiring being known as a "copper drop." (D.I. 249 at 3.) The copper drop runs from the NID to a serving terminal. At the serving terminal, copper drops from multiple residences merge within a junction box, out of which a bundled distribution cable of twisted pair wiring leads upstream toward what is called the remote terminal. That bundled distribution cable, along with bundled cables from other serving terminals, meet at a Digital Subscriber Line Access Multiplexer, known as a "DSLAM," within the remote terminal, which separates digital

telephone wiring network, including

circuitry for receiving a plurality of external signals encoding a plurality of information streams from the external source of information, and
circuitry for transmitting to selected sets of one or more of the plurality of transceivers a corresponding plurality of internal signals in the high frequency band each encoding one of the plurality of information streams over the telephone wiring network;

wherein the telephone wiring network includes a branch network which couples one of the plurality of telephone devices to the telephone exchange telephone exchange [sic], and the branch network includes circuitry for preventing transmission of signals in the high frequency band to the [sic] one of the telephone devices on the branch network.

('596 patent, Claim 61.)

and voice signals.³ Those bundled distribution cables merge at the remote terminal into a single communication link called a “backhaul”⁴ that transmits the signals upstream to the central office.⁵

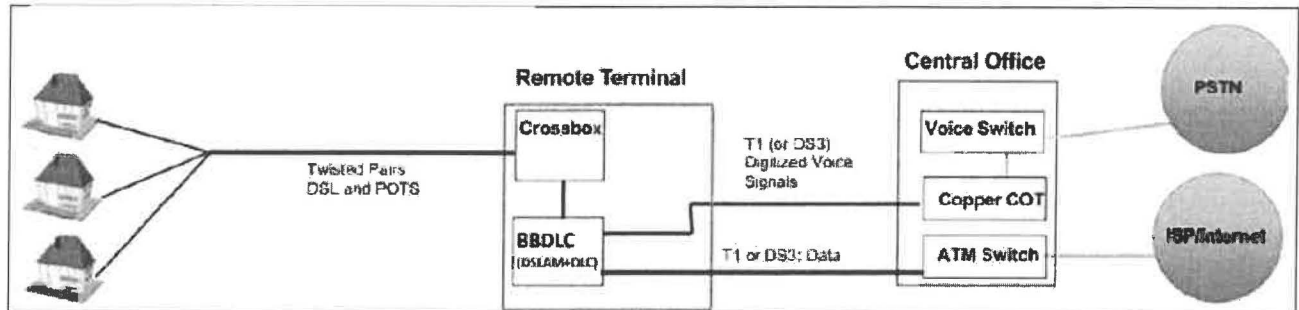
In its infringement contentions, UAT considers the DSLAM, which is located at the remote terminal, to be the “signal interface” and the central office to be the “telephone exchange” in the asserted claims. (D.I. 250-1, Ex. 3 ¶¶ 248, 322-23, Ex. 2 ¶ 219.) But the accused configuration does not infringe, the Defendants say, because the “signal interface” (as described by UAT) is thus located at the remote terminal and the remote terminal is not at the local end of the public telephone network, as required by the

³ In a different and not accused embodiment, the DSLAM is located further upstream, at the central office. *See UAT*, 757 F. App’x at 964 (“The defendants implement ADSL [(asymmetric digital subscriber line)] in one of two ways: through a central-office embodiment and a remote-terminal embodiment. Both embodiments feature a DSLAM that transmits data signals onto telephone lines at a frequency range higher than the frequencies at which voice signals are carried on those lines. The embodiments differ from one another based on the location of the DSLAM.”).

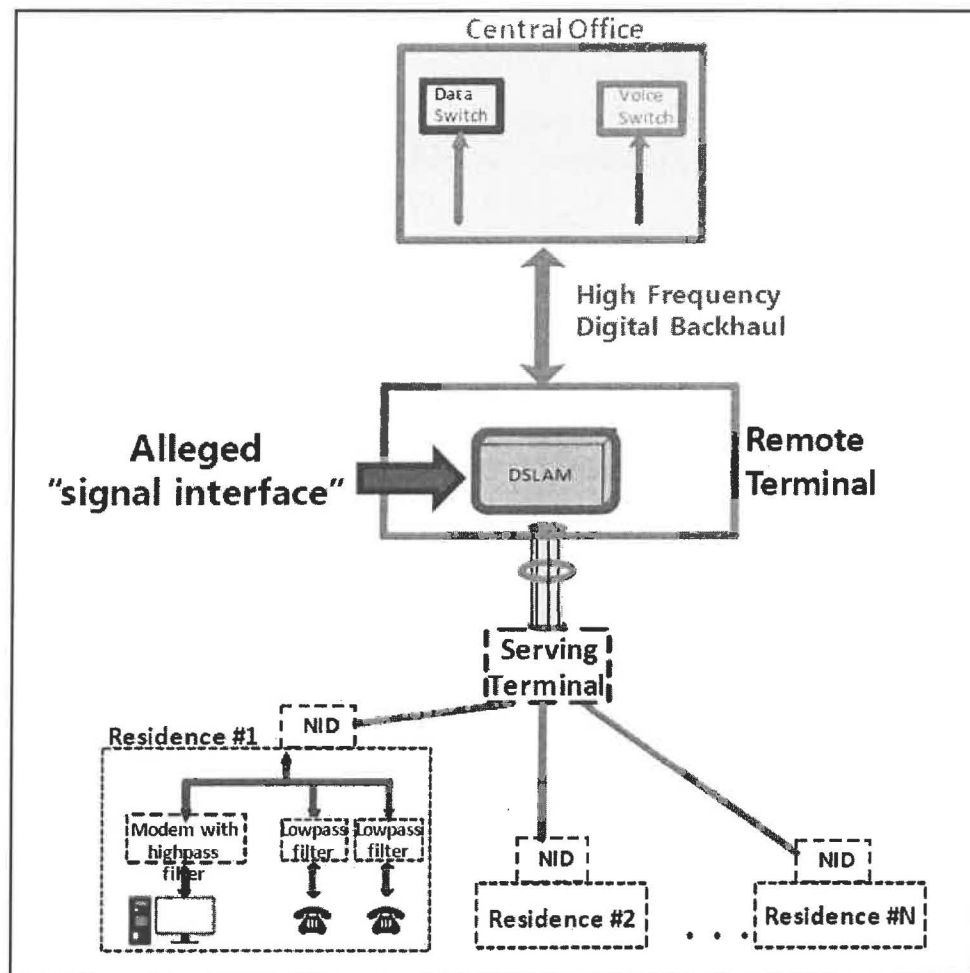
⁴ Backhauls can pass telephone signals via Plain Old Telephone Service (i.e. telephone signals still in the 0-4 kHz frequency), T1 (i.e. digital signals passed on twisted wire pair lines at a higher frequency centered at 772 kHz), or fiber-optic (i.e. digital signals passed on fiber-optic lines, at higher frequency bands, for example 2.29×10^{11} kHz). The distinctions are most relevant to the Defendants’ second noninfringement position, which I do not reach.

⁵ The preceding facts are summarized in the Defendants’ opening brief. (*See* D.I. 249 at 2-5.) UAT does not offer its own statement of facts. Instead, UAT notes that the Defendants’ “[m]otion makes ... disputed and incorrect allegations throughout both its argument and facts section,” and asserts that it “will respond in the course of its argument.” (D.I. 274 at 1 n.1.) UAT, however, does not clearly dispute any facts in its argument, only the proper understanding of the claim terms and whether those claim terms read on the devices described in the undisputed facts.

asserted claims. (D.I. 249 at 8.) Graphical representations from both parties are provided below:



(UAT's Summary Judgment Slide 9 (D.I. 250-1, Ex. 2 ¶ 205).)



(The Defendants' Summary Judgment Opening Slide A-5.)

On November 4, 2016, this Court issued (through Chief Judge Stark, then presiding in the case) its claim construction opinion, in which it construed the term “signal interface” to mean: “a device interposed on the opposite end (i.e., the local side) of the public trunk line (i.e., the telephone lines comprising the public telephone network) from the telephone exchange that performs the recited functions of the incorporated circuitry[.]”⁶ (D.I. 105 at 6.) Then, on August 22, 2017, the Defendants’ motion for summary judgment of noninfringement (both direct and under the doctrine of equivalents) was granted, based on the ruling that everything upstream from the NID (at the residence) was the public telephone network, and thus, because the accused signal interface was upstream from the NID, it was not on the local side of the public telephone network. *United Access Techs., LLC v. AT&T Corp.*, 265 F. Supp. 3d 446, 450-53 (D. Del. 2017). The Court reasoned that “[t]he telephone company owns the ... local loops,” making them “part of the public telephone network.” *Id.* at 452.

On appeal, the Federal Circuit “reject[ed] UAT’s principal claim construction argument,” but “agree[d] with UAT in one respect—that the district court improperly imported an ownership limitation in the course of its construction of the term ‘signal interface,’ and in particular in determining how the patents define the required location of the signal interface.” *UAT*, 757 F. App’x at 967. In other words, the Federal Circuit agreed that the signal interface must be located on the local side of the public trunk line,

⁶ The relevant limitation in representative Claim 61 of the ’596 patent reads: “a signal interface coupled between the external source of information and the telephone wiring network, including circuitry for receiving a plurality of external signals encoding a plurality of information streams from the external source of information.”

the public trunk line being the lines comprising the public telephone network, but it disagreed that ownership was relevant to the metes and bounds of that network. The Federal Circuit did not state where that end point was, explaining only that “the patents make clear that the terms ‘public telephone network’ and ‘public trunk line’ refer to a segment of the telephone wiring network located between the local exchange and a point of convergence, where the pre-existing interface was located.” *Id.* at 968 (citing ’596 patent at 8:10-13, 8:15-18, 9:23-25, 11:34-35). Because the District Court had relied on ownership to define the public telephone network, a limitation the Federal Circuit rejected as not grounded in the patent, it reversed in part and remanded. On remand, the Defendants continue to assert that the “signal interface” is not located on the local side of the public telephone network, rendering their accused systems non-infringing.

III. SUMMARY JUDGMENT STANDARD

Pursuant to Federal Rule of Civil Procedure 56(a), a moving party is entitled to summary judgment if it demonstrates that there are no genuine issues of material fact and that it is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). In determining whether there is a triable issue of material fact, a court must review the evidence and construe all inferences in the light most favorable to the non-moving party. *Moyer v. Patenaude & Felix, A.P.C.*, 991 F.3d 466, 469 (3d Cir. 2021). However, a court should not make credibility determinations or weigh the evidence. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). Once the moving party has carried its “burden of showing the absence of a genuine issue as to any material fact,” *Adickes v. S. H. Kress & Co.*, 398 U.S. 144, 157 (1970), the non-moving party, to defeat the motion for

summary judgment, “must do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986) (citations omitted). “Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no genuine issue for trial.” *Id.* at 587 (internal quotation marks omitted) (citation omitted). Accordingly, a mere scintilla of evidence in support of the non-moving party is insufficient for a court to deny summary judgment. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 252 (1986).

IV. DEFENDANTS’ MOTION FOR SUMMARY JUDGMENT OF NONINFRINGEMENT IS GRANTED

A. Legal Standard for Noninfringement

A patent infringement analysis involves two steps: claim construction and then application of the construed claim to the accused process or product. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). The first step, claim construction, is said to be purely a question of law. *See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 744 F.3d 1272, 1283-86 (Fed. Cir. 2014) (en banc), *cert. granted, judgment vacated sub nom. on other grounds by Lighting Ballast Control LLC v. Universal Lighting Techs., Inc.*, 574 U.S. 1133 (2015); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc). The second step, application of the claim to the accused product, is a fact-specific inquiry. *See Kustom Signals, Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1332 (Fed. Cir. 2001) (Patent infringement, “whether literal or under the doctrine of equivalents, is a question of fact.”). The patent owner has the burden of proving infringement by a preponderance

of the evidence. *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 758 (Fed. Cir. 1984) (citing *Hughes Aircraft Co. v. United States*, 717 F.2d 1351, 1361 (Fed. Cir. 1983)).

Summary judgment is appropriate in patent infringement suits when it is apparent that only one conclusion regarding infringement could be reached by a reasonable jury.

Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1323 (Fed. Cir. 2001).

“To find infringement under the doctrine of equivalents, any differences between the claimed invention and the accused product must be insubstantial.” *Brilliant Instruments, Inc. v. GuideTech, LLC*, 707 F.3d 1342, 1346 (Fed. Cir. 2013) (citing *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950)). A determination of infringement under the doctrine of equivalents is also a question of fact. *See Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1312 (Fed. Cir. 2009). Therefore, summary judgment of no infringement by equivalency is warranted when no reasonable jury could find equivalency between the accused product and claimed invention. *See Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1356 (Fed. Cir. 2012). “[T]he ‘all elements’ rule informs a doctrine of equivalents analysis by requiring that equivalence be assessed on a limitation-by-limitation basis, rather than from the perspective of the invention as a whole, and that no limitation be read completely out of the claim.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1016 (Fed. Cir. 2006). Accordingly, the “all elements” rule will foreclose “resort to the doctrine of equivalents” if “a limitation would be read completely out of the claim—*i.e.*, the limitation would be effectively removed or ‘vitiating.’” *Id.* “‘Vitiating’ is ... a legal conclusion of a lack of equivalence based on the evidence presented and the

theory of equivalence asserted.” *Cadence Pharm. Inc. v. Exela PharmSci Inc.*, 780 F.3d 1364, 1371 (Fed. Cir. 2015) (collecting cases). That is, “saying that a claim element would be vitiated is akin to saying that there is *no equivalent* to the claim element in the accused device based on the well-established ‘function-way-result’ or ‘insubstantial differences’ tests.” *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1342 (Fed. Cir. 2016) (citations omitted).

B. Discussion

The parties’ disagreement comes down to the meaning of “public trunk line,” defined by the earlier claim construction to mean “the telephone lines comprising the public telephone network.” (D.I. 178 at 6.) More precisely, the parties dispute whether the non-local portion of the public telephone network extends only to the remote terminal, or further downstream to the serving terminal. If the non-local portion of the public telephone network extends beyond the remote terminal, as the Defendants argue, then their accused systems do not infringe UAT’s asserted patents. As I endeavor to explain here, the record provides no evidence to support UAT’s assertion that the non-local portion of the network terminates at or before the remote terminal. Indeed, Defendants use UAT’s own expert testimony to demonstrate that the non-local portion of the public telephone network extends beyond the remote terminal. Consequently, there is nothing to support UAT’s argument that the remote terminal, containing the DSLAM, is on the local side of the network. The accused systems are therefore non-infringing as a matter of law.

The Defendants note that both this Court and the Federal Circuit placed a “positional limitation” on the “signal interface,” such that it “must be at the local side of the telephone lines comprising the public telephone network.” (D.I. 249 at 6.) The Defendants further contend that, because “UAT accuses only DSLAMs located in [remote terminals] as the alleged ‘signal interfaces[,]’ ... UAT bears the burden of proving that there are no lines comprising the public telephone network downstream of the [remote terminal].” (D.I. 249 at 7.) This, they say, UAT has failed to do because it has only provided evidence that confirms the lines running between the central office and the remote terminal are on the public (i.e., non-local) part of the public telephone network, but it has provided no evidence that the remote terminal and the lines running from it to the serving terminal are on the local side of the network.

Indeed, the Defendants assert that UAT’s expert expressly, emphatically, and repeatedly claimed to express no opinion as to whether lines comprising the public telephone network extend beyond the remote terminal.⁷ They describe this failure as

⁷ UAT’s Defense Counsel engaged in the following colloquy with its expert:

Q: In your analysis, ... did it matter whether or not there were telephone lines comprising a public telephone network downstream of the remote terminal?

A: I did not express an opinion about such an architecture.

Q. So the fact that if there were telephone lines comprising the public telephone network on both upstream of the DSLAM at the remote terminal and downstream of the DSLAM of the remote terminal wouldn’t impact ... your opinion one way or the other?

A: *That’s not my testimony.*

Q. Well, did you undertake an analysis to try to determine whether or not AT&T’s remote terminal DSLAMs, DSLAMs located in the remote terminal, satisfied the court’s construction of the “signal interface” term?

A. The remote terminal is a device interposed on the opposite end of the public trunk line

“unsurprising” because the bundled distribution cables that flow between the remote terminal and serving terminal are, indeed, part of the non-local portion of the public telephone network. (D.I. 249 at 8 (citing D.I. 250-1, Ex. 3 ¶ 287, Ex. 2 Appx. B at 13, 15).) The Defendants acknowledge that UAT’s expert opined “that a DSLAM at the [remote terminal] satisfies the ‘signal interface’ positional requirement” but call this a “bare” and “naked conclusion” that is only based on analysis of the telephone lines

from the telephone exchange that performs the recited functions of the incorporated circuitry.

Q. And are there any telephone lines comprising the public telephone network downstream of the remote terminal?

A: *I have not expressed that opinion.*

Q: You’ve provided no opinion that there are or are not telephone lines comprising the public telephone network downstream of AT&T’s remote terminals; is that correct?

Q: No, not correct.

Q. Well, do you have an opinion that there are no telephone lines comprising the public telephone network downstream of AT&T’s remote terminals?

A: *Again, I have not expressed that opinion*; however, to find infringement, I would have to find a signal interface which, as defined by the court, is a device interposed on the opposite end of the public trunk line from the telephone exchange that performs the recited functions of the incorporated circuitry. So the signal interface would need to be at the opposite end of the public trunk line from the telephone exchange. And you’re asking me about other architectures that I have not expressed an opinion on.

Q: So you have not expressed an opinion that there are no telephone lines comprising the public telephone network downstream of AT&T’s accused remote terminals?

A: *I believe I’ve testified as to that at least three times now.*

(D.I. 250-1, Ex. 4 at 171:2-73:15 (emphases added and objections as to form omitted).)

UAT responds to this testimony by pointing out where its expert reported that the remote terminal is “on the local side of the public trunk line from the telephone exchange[.]” (D.I. 274 at 10 n.12 (quoting D.I. 250-1, Ex. 1 at ¶ 324-25).) I agree that UAT’s expert did not concede the point by opining on the phrase “public trunk line,” rather than “public telephone network,” as the phrase was defined in the Court’s claim construction. But his barebones restatement of the claim limitation does not create an issue of fact.

upstream from the remote terminal, not downstream. (D.I. 249 at 10 (citing *Davis v. Brouse McDowell, L.P.A.*, 596 F.3d 1355, 1364 (Fed. Cir. 2010)).)

The Defendants next argue that UAT's expert testimony, read in conjunction with the Federal Circuit's opinion, clarifies that the public portion of the telephone network must extend beyond the remote terminal. The Federal Circuit described the "public telephone network" as "a segment of the telephone wiring network between the local exchange and a point of convergence, where the pre-existing interface was located." *UAT*, 757 F. App'x at 968. According to Defendants, that point of convergence occurs downstream from the remote terminal. More specifically, the Defendants say the point of convergence does not occur upstream from the serving terminal because, based on UAT's own expert testimony, the serving terminal "provides points of connection for twisted pair wire to each of the individual homes" in a subdivision. (D.I. 250-1, Ex. 4 at 173:22-174:3.) Thus, because the signal interface in the accused system is, according to UAT, located at the remote terminal, which is upstream of the serving terminal's point of convergence of lines from the local side of the network, the Defendants' accused systems do not literally infringe.

Lastly, under the doctrine of equivalents, the Defendants argue that a holding of equivalence would vitiate the positional limitation on the signal interface. They note that the patent's choice of signal interface location, "'interposed on the opposite end' of the 'public telephone network[,]" was intentionally selected to avoid violating government regulations. (D.I. 249 at 12 (quoting *United Access Techs., LLC*, 265 F. Supp. 3d at 453) (citing '596 patent at 8:41-43).) Additionally, based on their expert's reading of the

patents, the Defendants explain that the patents prioritize “[p]lacing the ‘signal interface’ as close to the residences as possible” in order to “minimize[] signal attenuation caused by increased length of twisted pair wiring.” (D.I. 249 at 12.) They say the patent teaches that placing the signal interface at the farthest downstream point of convergence minimizes “cross-talk.” (D.I. 249 at 12.) Therefore, the purposes behind the locational limitation would be vitiated by treating the DSLAM in the remote terminal as the signal interface.

Those arguments are persuasive, and UAT has presented no evidence that lines running between the remote terminal and serving terminal are on the local portion of the network. In fact, it certainly appears that UAT’s expert expressly declined to opine on lines running downstream of the remote terminal. I thus conclude that there are no disputed issues of material fact. The non-local portion of the public telephone network extends beyond the remote terminal and, therefore, the patent’s positional limitation for a signal interface is not met by a device located at the remote terminal. For that reason, summary judgment is warranted. And, as will now be discussed, UAT’s responsive arguments are unavailing.

UAT contends that the Federal Circuit, after rejecting ownership as a defining characteristic of the public telephone network, *UAT*, 757 F. App’x at 967, then made the additional determination that the public trunk line extends only to the remote terminal. (D.I. 274 at 1.) UAT extrapolates that conclusion through excerpted segments of the Federal Circuit’s background description of the Defendants’ accused systems. UAT reads those excerpts to imply that extended pair wiring is distinct from the public trunk

line.⁸ From that supposed implication, UAT concludes that the Federal Circuit decided that the remote terminal is the end point of the public trunk line because bundled extended pair wiring extends downstream from the remote terminal. UAT thus suggests infringement based on nothing more than stitched together quotes from the Federal Circuit’s discussion of background facts, but that reading of the discussion infers a conclusion concerning something that was not before the Federal Circuit and for which there is no meaningful support in the record.

Next, UAT repeatedly cites its expert statement that “[t]he remote terminal is a device interposed on the opposite end of the public trunk line from the telephone exchange that performs the recited functions of the incorporated circuitry.” (D.I. 250-1, Ex. 4 at 171:24-172:2.) The expert relied on the testimony of an AT&T employee “that a trunk is a connection between major elements in the network, and would be a higher capacity connection and not a subscriber line.”⁹ (D.I. 274 at 3-4 (citations omitted).) Nevertheless, the Defendants’ critique holds true: UAT’s expert only analyzed the nature of the lines upstream, not downstream, of the remote terminal.

⁸ Specifically, UAT explains that the Federal Circuit described that, heading downstream from the DSLAM, “telephone wires carrying both voice and data signals, known as ‘extended pairs,’ are bundled into a common cable and distributed to serving terminals.” *UAT*, 757 F. App’x at 964. Later on, that Court noted in passing that “the extended pairs [] are located on the local side of the public trunk line[.]” *Id.* at 968.

⁹ The Defendants explain that the AT&T employee discussed the generic term “trunk,” not “public trunk line” or “public telephone network,” and was speaking about industry, not patent specification usage of the term. (D.I. 249 at 11 (citing D.I. 250-1, Ex. 3 ¶ 323).)

Lastly, UAT says there are fact issues related to whether the serving terminals bundle lines. But the question that's been presented to me is not whether serving terminals might be the end point of the non-local portion of the public telephone network; it is whether the remote terminal, containing the accused DSLAM as the signal interface, is on the local side of the network. That is how UAT has chosen to argue the case and UAT's expert never disputes the nature of the Defendants' accused systems, nor does he raise other fact issues. Instead, the expert makes the argument that the remote terminal can still be the end point of the public portion of the network even though bundled lines exist downstream, or, in other words, that the point of convergence need not be the first point of convergence. He reaches that conclusion by reading the specification to "state[] that extended pairs 'may be bundled closely together near the point of convergence[.]'" (D.I. 274 at 7 (quoting D.I. 250-1, Ex. 2 ¶ 75).) He opines that the "point of convergence" is a "centralized location," and one "at which conductors lead to a large number of subscribers[.]" which he argues describes a remote terminal. (D.I. 274 at 7-8 (quoting D.I. 250-1, Ex. 2 ¶ 75).)

I agree with the Defendants that UAT's expert tries to pick his preferred point of convergence, not discern the point of convergence described by the specification. The patent instructs, for the reasons summarized by the Defendants, that the public trunk line, i.e., the non-local portion of the telephone network, runs upstream from the furthest downstream point of convergence, not from any chosen spot that has characteristics resembling a point of convergence.

In sum, the claim construction opinion, the Federal Circuit’s affirmance of the locational element of the signal interface in the claim construction, and a plain reading of the specification all lead me to conclude that the boundary between the local and non-local portions of the public telephone network is at a point downstream of the remote terminal in the accused configuration of the Defendants’ systems, so the DSLAM in the remote terminal is not on the local side of the network. (*See, e.g.*, D.I. 105 (claim construction opinion) at 8-9 (“[E]ven if Plaintiff is correct that a person of ordinary skill would understand that a signal interface is not inherently required to be located at the intersection of the public telephone lines and the lines that run separately to particular structures, the Court concludes that a person of ordinary skill in the art would understand that to be a limitation imposed by the claims themselves.”).) The Defendants have shown that there is no dispute of material fact in this regard, and UAT cannot prove infringement based on a signal interface located at the remote terminal. I will therefore grant the Defendants’ motion for summary judgment of noninfringement.

V. MOTION FOR SUMMARY JUDGMENT OF INVALIDITY IS DENIED

A. Legal Standard

A claimed invention cannot be patented “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103. “The obviousness determination turns on underlying factual inquiries involving [the four *Graham* factors]: (1) the scope and content of prior art, (2) differences between claims

and prior art, (3) the level of ordinary skill in pertinent art, and (4) secondary considerations such as commercial success and satisfaction of a long-felt need.” *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)). “While an analysis of any teaching, suggestion, or motivation to combine elements from different prior art references is useful in an obviousness analysis, the overall inquiry must be expansive and flexible.” *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012) (citing *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415, 419 (2007)).

A patent is presumed valid, *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006), and a party seeking to invalidate a patent for obviousness must demonstrate “by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention” in addition to establishing “that the skilled artisan would have had a reasonable expectation of success in doing so.” *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007). Notably, “the obviousness inquiry requires examination of all four *Graham* factors. Indeed, courts must consider all of the *Graham* factors prior to reaching a conclusion with respect to obviousness.” *Kinetic Concepts, Inc.*, 688 F.3d at 1360 (citations omitted).

“Clear and convincing evidence” is a standard requiring that the fact finder have “an abiding conviction that the truth of [the] factual contentions are highly probable.” *Procter & Gamble Co.*, 566 F.3d at 994 (alteration in original) (quoting *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984)). And the “party asserting an obviousness claim bears

that high burden of persuasion.” *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1069 (Fed. Cir. 2012) (citing *Microsoft Corp. v. i4i Ltd.*, 564 U.S. 91, 95 (2011)); *see also Kinetic Concepts Inc.*, 688 F.3d at 1360 (noting that the burden to establish obviousness, by clear and convincing evidence, remains with the defendant “[a]t all times” (citation omitted)). Thus, on a motion for summary judgment for invalidity, when a court must construe all inferences in the light most favorable to the patent owner, whose patent is presumed valid, a defendant must meet a high burden indeed. *Goodman*, 534 F.2d at 573; *Adickes*, 398 U.S. at 157.

B. Discussion

The Defendants argue that the Asserted Patents are invalid for obviousness. According to the Defendants, “here, an accused system is the same as a prior art system” and they may, therefore, “rely on [UAT’s] infringement contentions to carry [their] burden of proving invalidity based on the prior art.” (D.I. 252, at 1 (citing *Vanmoor v. Wal-Mart Stores, Inc.*, 201 F.3d 1363 (Fed. Cir. 2000).) But the Defendants have not presented any undisputed material facts that would permit me to say that UAT’s infringement contentions and the prior art references are in fact the same. Nor do the parties agree that UAT’s infringement contentions and the prior art references are the same. For example, even if I presume that a person having ordinary skill in the art would combine the prior art references, the parties dispute what those references teach. (Compare D.I. 252, at 2-3, with D.I. 272, at 1-3.) And their disagreement presents factual disputes, including a dispute as to the credibility of or weight attributed to expert testimony UAT supplied in support of its position. (Compare D.I. 272, at 2, with D.I.

289, at 2.) Thus, I cannot say there is no triable issue of material fact regarding what those prior art references would teach to a person having ordinary skill in the art. *Reeves*, 530 U.S. at 150 (“[T]he court must draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” (citations omitted)).

Absent any finding regarding the similarities between the infringement contentions and prior art references, I cannot apply the invalidity standard the Defendants have presented.¹⁰ Nor should I, given that the Defendants’ burden to establish invalidity may be eased, in part, under the standard they propose. *01 Communique Lab., Inc. v. Citrix Sys.*, 889 F.3d 735, 742 (Fed. Cir. 2018) (citations omitted); *see Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357, 1367 (Fed. Cir. 2002) (“Where an accused infringer is clearly practicing only that which was in the prior

¹⁰ I offer no opinion regarding whether the application of that relaxed standard should be applicable to the invalidity standard when invalidity is based on obviousness, as opposed to invalidity under 35 U.S.C. § 102. It is worth noting, however, that the Federal Circuit has only applied that standard when the accused device is the very same device that the prior art reference discloses, not just any similar device that *practices* the same reference. *See, e.g., 01 Communique Lab., Inc.*, 889 F.3d at 742-43 (Fed. Cir. 2018) (“Where an accused infringer is clearly practicing only that which was in the prior art, and nothing more, the patentee’s proffered construction reads on the accused device, meeting [the] burden of [establishing invalidity] should not prove difficult.” (alterations in original) (citations omitted)); *see also Evans Cooling Sys., Inc. v. General Motors Corp.*, 125 F.3d 1448, 1450-51 (Fed. Cir. 1997), *abrogated on other grounds recognized by Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc.*, 2018 WL 1583031 (Fed. Cir. Jan. 16, 2018); *Bennett Regulator Guards, Inc. v. Canadian Meter Co., Inc.*, 184 F. App’x 977, 977-78 (Fed. Cir. 2006); *Vanmoor v. Wal-Mart Stores, Inc.*, 201 F.3d 1363, 1364-66 (Fed. Cir. 2000); *see also Inline Connection Corp. v. EarthLink Inc.*, 684 F. Supp. 2d 496, 515 (D. Del. 2010); *Benedict v. General Motors Corp.*, 184 F. Supp. 2d 1197, 1198-99 (N.D. Fla. 2002).

art, and nothing more, and the patentee's proffered construction reads on the accused device, meeting this burden of proof [i.e., proving invalidity by clear and convincing evidence] should not prove difficult."). Moreover, the obviousness inquiry "turns on underlying *factual* inquiries involving" the four *Graham* factors, *Procter & Gamble Co.*, 566 F.3d at 994 (emphasis added), all of which I must consider "prior to reaching a conclusion with respect to obviousness." *Kinetic Concepts, Inc.*, 688 F.3d at 1360.

As the Defendants have not met their burden on summary judgment to establish that there is no genuine dispute of material fact, I will deny their motion for summary judgment of invalidity.

VI. CONCLUSION

For the foregoing reasons, I will grant the Defendants' motion for summary judgment of noninfringement (11-338, D.I. 248; 11-339, D.I. 275), deny the Defendants' motion for summary judgment of invalidity (11-338, D.I. 251; 11-339, D.I. 278), and deny the remaining motions as moot.¹¹

¹¹ To recap, those motions are UAT's motion for partial summary judgment and to strike certain expert testimony (11-338, D.I. 256; 11-339, D.I. 281), the AT&T Defendants' motion to exclude expert opinions motions (11-338, D.I. 245), the CenturyTel Defendants' motion to exclude expert opinions (11-339, D.I. 268); the CenturyTel Defendants' motion for partial summary judgment pursuant to 35 U.S.C. § 287(a) (11-339, D.I. 271), and the Defendants' cross-motion for summary judgment (11-338, D.I. 276; 11-339, D.I. 300).